DERBEDENOVA, M.P.; KUROCHKIN, B.I.; GLUMOVA, Z.I.; ZHIGUL'SKAYA, I.F.; VEVOR, P.A.; BORISOVA, A.I.; LYUBART, A.M.

Diagnostic value of the determination of blood serum aldolase activity in Botkin's disease. Sov.med. 25 no.1:92-95 Ja '61. (MIRA 14:3)

1. Iz Virusologicheskoy laboratorii Astrakhanskoy oblastnoy sanitarno-epidemiologicheskoy stantsii (glavnyy vrach I.I.Troitskiy), kafedry mikrobiologii Astrakhanskogo meditsinskogo instituta, Bol'nitsy imeni Bekhtereva (glavnyy vrach V.I.Gembitskiy) i Gorodskoy sanitarno-epidemiologicheskoy stantsii (glavnyy vrach G.A.Gul'gaz'yants).
(ALDOLASE) (HEPATITIS, INFECTIOUS)

KONOVA, I.V.; BORISOVA, A.I.

Production of vitamin B_{12} by Act. olivaceus on a synthetic medium. Mikrobiologiia 30 no.1:27-34 Ja-F '61. (MIRA 14:5)
(ACTINOMYCES) (CYANOCOBALAMINE)

ZAYAS, Yu.F., starshiy nauchnyy sotrudnik; CHIRYATNIKOV, V.I., starshiy nauchnyy sotrudnik; BUSHKOVA, L.A., mladshiy nauchnyy sotrudnik; BORISOVA, A.I., starshiy tekhnik

Using the ultrasonic hydrodynamic system for the production of dondiment emulsions. Trudy VNIIMP no.14:82-84 '62. (MIRA 16:8)
(Condiments) (Ultrasonic waves--Industrial applications)

KOCHKIN, D.A.; KOTRELEV, V.N.; KALININA, S.P.; KUZNETSOVA, G.I.; LAYNE, L.V.; CHERVOVA, L.V.; BORISOVA, A.I.; BORISENKO, V.V.

Organotin monomers and polymers. Vysokom.soed. 1 no.10: 1507-1513 O '59. (MIRA 13:3)

1. Nauchno-issledovatel'skiy institut plasticheskikh mass. (Tin organic compounds) (Polymers)

SOV/4982

International symposium on macromolecular chemistry, Moscow, 1960.

Mezhdunarodnyy simpozium po makromolekulyarnoy khimii SSSR, Moskva, 14-18 iyunya 1960 g.; doklady i avtoreferaty. Sektsiya I. (International Symposium on Macromolecular Chemistry Held in Moscow, June 14-18, 1960; Papers and Summaries. Section I.) [Moscow, Izd-vo AN SSSR, 1960] 346 p. 5,500 copies printed.

Sponsoring Agency: The International Union of Pure and Applied Chemistry, Commission on Macromolecular Chemistry

Tech. Ed.: T. V. Polyakova.

PURPOSE: This collection of articles is intended for chemists and researchers interested in macromolecular chemistry.

COVERAGE: This is Section I of a multivolume work containing scientific papers on macromolecular chemistry in Moscow. The material includes data on the synthesis and properties of polymers, and on the processes of polymerization, copolymerization, polycondensation, and polyrecombination. Each text is presented in full or summarized in French, English, and Russian. There are 47 papers, 28 of which were presented by Soviet, Rumanian, Hungarian, and Czechoslovakian scientists. No personalities are mentioned. References accompany individual articles.

Card 6/9

49

26290
S/190/61/003/008/003/019
B110/B220

15.8150

AUTHORS: Shostakovskiy, M. F., Kotrelev, V. N., Kalinina, S. P., Kuznetsova, G. I., Layne, L. V., Borisova, A. I.

TITLE: Organotin monomers and polymers. IV. Synthesis and conversion of tin-containing esters of acrylic and cinnamic acids

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 8, 1961, 1128-1130

TEXT: The present paper deals with the synthesis of organotin derivatives of cinnamic and acrylic acids. The synthesis was performed by a method developed by the authors. The vaporous alkyl halide was reacted in a tube furnace or autoclave with an Sn-Mg alloy in the presence of various solvents and catalysts. The alkyl-halide tin compounds formed were saponified with lye to the corresponding hydroxy derivatives, and then the esters were obtained by reaction with acrylic or cinnamic acid. 1) Triethyl-stannyl acrylate $(C_2H_5)_3SnOCOCH=CH_2$, was obtained from a 50% aqueous solution of acrylic acid at 5-10°C by adding triethyl stannol. The white crystalline

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Organotin monomers and polymers ...

precipitate (melting point 102°C) could be dissolved in organic solvents. 2) In the same way, tributyl-stannyl acrylate was obtained from hexabutyl stannous oxide and acrylic acid. 3) The triethyl-stannyl ester of cinnamic acid was obtained from cinnamic acid and hexaethyl stannous oxide according to the equation $(C_2H_5)_6Sn_2O + 2\ C_6H_5\text{-}CHCOOH \longrightarrow 2\ (C_2H_5)_3SnOCOCH\text{-}CHC_6H_5 + H_2O$. The organotin compounds obtained polymerize easily, and form transparent solid copolymers with styrene and methyl methacrylate. The thermomechanical properties of some polymers and copolymers are shown in Fig. 2. There are 2 figures and 3 Soviet references.

ASSOCIATION: Nauchno-issledovatel'skiy institut plasticheskikh mass (Scientific Research Institute of Plastics)

SUBMITTED: September 1, 1960

15.6150

26291
S/190/61/003/008/004/019
B110/B220

AUTHORS: Shostakovskiy, M. F., Kotrelev, V. N., Kuznetsova, G. I., Kalinina, S. P., Layne, L. V., Borisova, A. I.

TITLE: Studies on the synthesis and conversions of organotin monomers and polymers. V. Study of the formation of organotin polymers as a function of the polymerization conditions, and some physicochemical properties of organotin polymers

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 8, 1961, 1131-1134

TEXT: The present study deals with the yield in polymers of triethyl-stannyl methacrylate and acrylate as a function of polymerization time, temperature, initiation, and concentration. Benzoyl peroxide, azoisobutyric acid dinitrile, or triethyl-benzyl ammonium chloride served as initiators. The results are shown in Fig. 1. The composition of the copolymer from triethyl-stannyl methacrylate and methyl methacrylate was studied for initial molar ratios of the components of 1:1, 1:4, and 1:12. At an initial

Card 1/5

ratio of 1:1, the components of the copolymer were approximately equal. The composition was, however, 5:1 when the initial ratio had been 1:4. It is concluded that organotin compounds polymerize more slowly than methyl methacrylate. Experimental results: 1) The region of strong deformation of organotin methacrylates is found at higher temperatures than that of the corresponding acrylates. 2) The temperature of initial deformation decreases considerably with increasing size of the alkyl radicals. The dielectric properties of copolymers are listed in Table 1. The copolymer of triethyl-stannyl methacrylate with methyl methacrylate was easily hydrolyzed by alkalis. It is, however, stable in water, dilute HCl, and dilute H_2SO_4. Papers of M. M. Koton et al. (Ref. 4: Mezhdunarodnyy simpozium po makromolekulyarnoy khimii, Moskva, June, 1960, I sektsiya, p. 167. (International Symposium on High Molecular Chemistry, Moscow). are mentioned. There are 2 figures, 2 tables, and 4 Soviet references.

ASSOCIATION: Nauchno-issledovatel'skiy institut plasticheskikh mass (Scientific Research Institute of Plastics). Institut organicheskoy khimii AN SSSR (Institute of Organic Chemistry AS USSR)

NESMEYANOV, A.N.; BORISOV, A.Ye.; BORISOVA, A.I.

Alkenyl derivatives of arsenic. Izv.AN SSSR.Otd.khim.nauk no.7:1199-1203 Jl '62. (MIRA 15:7)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Arsenic organic compounds) (Unsaturated compounds)

SHAPOSHNIKOV, V.N.;KONOVA, I.V.; BORISOVA, A.I.

Vitamin B_{12} synthesis by Actinomyces olivaceus in a synthetic medium in the presence of 5,6-dimethyl benzimidazole. Mikrobiologiia 32 no.4:598-602 Jl-Ag '63. (MIRA 17:6)

1. Institut mikrobiologii AN SSSR.

BORISOVA, A.K.

137-58-1-1782

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 1, p 242 (USSR)

AUTHORS: Borisova, A.K., Borodkina, M.M., Gabrielyan, D.I., Pridantseva, K.S., Solov'yeva, N.A.

TITLE: A New Alloy for Spiral Hair Springs in Clockworks (Novyy splav dlya spiral'nykh pruzhin (voloskov) chasovykh mekhanizmov)

PERIODICAL: Sb. tr. Tsentr. n.-i. in-t chernoy metallurgii, 1956, Nr 15, pp 313-344

ABSTRACT: The effect of deformation and heat treatment on the phase composition and properties of N35KhMV (I) alloy, having a small variation in modulus of elasticity (E) with temperature, were investigated by microstructural, x-ray structural, and chemical phase analysis. It was found that insignificant variations in the composition of a solid solution from the optimal, with respect to Ni and other elements, results in an increase in the variation of E with temperature. I becomes stronger after deformation and tempering due to precipitation out of the γ-solid solution of dispersed carbides $(Cr, Fe, W, Mo)_7C_3$. Without preliminary cold working aging proceeds slowly. Heat treatment of watch hair springs made of I should strictly adhere to procedure. If

Card 1/2

137-58-1-1782

A New Alloy for Spiral Hair Springs in Clockworks

the temperature of heat treatment of a wire 0.3 mm in diameter is increased, the solid solution becomes more highly alloyed and the hair springs become embrittled. I has been adopted for mass production of hair springs. Heat treatment (at 1000°) of wire made of I in vacuum will, if the shape is properly fixed, facilitate the production of high-quality hair springs at watch factories.

M. Sh.

1. Helical springs--Deformation 2. Helical springs--Properties 3. Helical springs--Test methods 4. Helical springs--Test results

Card 2/2

AUTHORS: Borisova, A.K., Sol'ts, V.A. 32-1-30/55

TITLE: The Measuring of Young's Modulus on Thin Samples Made From Elastic Alloys (Izmereniye modulya uprugosti pruzhinnykh splavov na tonkikh obraztsakh).

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 1, pp. 70-74 (USSR)

ABSTRACT: In this paper measuring methods are described, among them that developed by T.A. Gevondyan Ref. 1,2 with application of a tensometer, and the dynamical method with application of the apparatus of the construction of the TsNIITMASh, which is based upon the principle of resonance oscillations (fig. 1). In the former case samples of the thickness of up to 0.3 mm, and in the latter case samples having a thickness of 1 mm are used. In this connection it is said that for some of the latest elastic alloys no data concerning Young's moduli have as yet been worked out in the USSR, as e.g. for the alloys: N36KhTYu and N35KhMV, which are dealt with here. In the chapter: Research Methods, first of all the method of determining Young's modulus in the case of "pure bending" with application of the apparatus developed by Gevondyan is dealt with with respect to the aforementioned samples and the results obtained are

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shown graphically as well as in a table. Following this, the determination of Young's modulus by the (dynamical) resonance frequency method by application of the second testing device mentioned above is described. In this case Young's moduli for round and for flat samples are determined, which are here shown together in 2 tables. A further table shows a comparison of results obtained by both methods, and in conclusion the following statements are made: 1.) For the determination of Young's modulus of foil- and band-like materials having a thickness of 1 mm the second method and apparatus are to be recommended. (For samples of greater thickness test conditions must be adapted accordingly). For bands of a thickness of 0.1-0.3 mm the first-mentioned method and apparatus developed by Gevondyan is to be preferred. In this case graphical treatment of results is necessary. 2.) Young's modulus for the alloys N36KhTYu and N35KhMV in the case of samples having a thickness of 0.3 and 1.0 mm depends upon the degree of deformation and the manner of thermal treatment: With a higher degree of deformation Young's modulus decreases, and it rises in the case of more dense hardened and softened samples. There are 1 figure,

The Measuring of Young's Modulus on Thin Samples Made From Elastic Alloys 32-1-30/55

4 tables, and 4 references, 3 of which are Slavic.

ASSOCIATION: Central Scientific Research Institute for Ferrous Metallurgy (Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii).

AVAILABLE: Library of Congress

Card 3/3 1. Elastomers-Test methods 2. Elastomers-Test results

Borisova, A. K.

PHASE I BOOK EXPLOITATION SOV/3940

Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Institut pretsizionnykh splavov

Pretsizionnyye splavy (Precision Alloys) Moscow, Metallurgizdat, 1959. 268 p. (Series: Its: Sbornik trudov, vyp. 22) 2,150 copies printed.

Additional Sponsoring Agency: USSR. Gosudarstvennyy planovyy komitet

Ed.: D. I. Gabrielyan; Ed. of Publishing House: Ye. I. Levit; Tech. Ed.: P. G. Islent'yeva.

PURPOSE: This collection of article. is intended for technical personnel and scientific workers in the metallurgical, instrument-manufacturing, and electrical-equipment-manufacturing industries. It may also be useful to students of schools of higher technical education.

COVERAGE: This collection of articles presents the results of studies of precision alloys made in recent years by the Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii (Central Scientific Research Institute of Ferrous Metallurgy). Properties of metal alloys which can be soldered (soft or hard) with glass and ceramic materials and alloys used for making springs are discussed. Anomalies of electrical resistance and thermal expansion and the effect of irradiation on properties of alloys are considered. Problems connected with the determination of magnetic susceptibility and with rolling of bimetallic strips are reviewed. An analysis of alloys used in manufacturing high-temperature transducers and strain gages is presented. No personalities are mentioned. References follow several of the articles.

BORISOVA, A.K.; NOSAN', L.T.; SOL'TS, V.A.; TIMOFEYEVA, Z.A.

Alloys for tension members in electric measuring devices. Sbor. trud. TSNIICHM no.25:311-325 '62. (MIRA 15:6)
(Electric measurements—Equipment and supplies)

S/776/62/000/025/023/025

AUTHORS: Borisova, A.K., Nosan', L.T., Sol'ts, V.A., Timofeyeva, Z.A.

TITLE: Alloys for tension members in electrical measuring instruments.

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Sbornik trudov. no. 25. Moscow, 1962. Pretsizionnyye splavy. pp. 311-325.

TEXT: The paper describes an experimental investigation of alloys for tension members for electrical measuring instruments which must exhibit an elevated strength, small elastic aftereffect, nonmagnetic behavior, low electrical resistance (ER), and elevated corrosion resistance (CR). The direct objective of the investigation was the study of the possibility of applying new Co- and Cr-Ni-based spring alloys for such tension members. In attempting the selection of suitable alloys, it is found that dispersion-hardening spring steels, which have elevated elastic properties as a result of work hardening and anneal, should also simultaneously exhibit the smallest elastic aftereffects. Such alloys were developed by the Institute for Precision Alloys at the TsNIIChM (Central Scientific Research Institute of Ferrous Metallurgy); the investigation of the properties of these alloys with respect to use in tension members was performed at the Institute, jointly with the Engineering

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Department of the "Vibrator" plant. The chemical composition, the mechanical properties, the ER, and thermal expansion coefficient are listed in detail for both the Co-based and the Fe-Cr-based alloys. All alloys were smelted in the high-frequency induction furnace according to TsNIIChM procedures. They were then forged into a round billet, 42-43-mm diam, after preheating to 1,180-1,200°C, with a billet T after forging of no less than 1,000°. The forged billets were etched to eliminate any surface defects and were rolled to an 8-mm diam. Cold-drawn wire of 0.2-0.1-mm diam was made with intermediate heat treatments in the open furnace, as follows: Heating to 1,000-1,180°C, 15-20-min soaking (depending on the wire diam), water cooling. Heat treatment was performed in the furnace under a shielding atmosphere. Of all the alloys investigated the most suitable materials for tension members are the alloys K40HXMB (K40NKhMV) and H36X8MTYu (N36Kh8MTYu). Compositions are shown in the body of the paper. The tensile strength of tension members made of these materials approaches 250-300 kg/mm^2, with a 0.02-0.05% elastic aftereffect of 10-mm long tension member as measured by the angle of twist. The magnetism of these alloys is practically negligible. Their CR is elevated. The tension members can be soldered with ordinary tin-based soldering compounds. The 2 alloys are suitable for the finest type of wire drawing and rolling. The K alloy has better mechanical and elastic properties, whereas the N alloy is more easily handled in manufacture, since it is more ductile in wire drawing and rolling and

undergoes less embrittlement during work hardening. Both alloys have served well in tension members used in highly-sensitive laboratory instruments. There are 13 figures, 5 tables, and 8 references (7 Russian-language Soviet and 1 English-language: M. Fangeman, Instr. & Automation, v.27, no.5, 1954, 98).

L 32029-66 EWT(m)/EWP(w)/T/EWP(t)/ETI IJP(c) JD/JG

ACC NR: AP6019499 SOURCE CODE: UR/0129/66/000/006/0010/0011

66
65
B

AUTHOR: Borisova, A. K.; Belov, B. G.

ORG: TsNIIChERMET

TITLE: Spring niobium-base alloy with stable elasticity modulus at high temperature

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 6, 1966, 10-11

TOPIC TAGS: niobium, niobium alloy, age hardenable alloy, high elasticity alloy, spring alloy, high temperature alloy, corrosion resistant alloy, titanium containing alloy, aluminum containing alloy, alloy property

ABSTRACT: The properties and behavior of niobium-base alloys containing 55%Nb, 39.5%Ti and 5.5%Al have been investigated. Alloys were rolled at 1160—1180C into sheets 3.5—4 mm thick which were annealed at 1000C, water quenched, and rolled at 300—350C to a thickness of 0.3—0.1 mm with process annealing at a thickness of 1.0—0.16 mm. Total reductions after process annealing amounted to 35—40%. Rolled specimens were aged (400—800C for 3 hr) or annealed at 1000C and aged. Aging sharply increased the hardness and strength of both as-rolled and annealed specimens with the maximum effect produced by aging at 600—650C. The microstructure of tempered strain-hardened alloys consists of a finely dispersed heterogeneous mixture which consists of solid solution and, apparently, the $(NbTi)_3Al$ compound. The hardness of alloys annealed in vacuum at 1000C and then tempered in vacuum was found

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to be 241 HB at room temperature, 197 HB at 500C, and 179 HB at 600C. In stress-relaxation tests at 500C, the initial stress of 43.5 kg/mm^2 in as-rolled and aged specimens dropped about 19%. As-rolled alloy had a tensile strength and elongation of 90.5 kg/mm^2 and 7%, respectively, and after aging at 725C, 120 kg/mm^2 and 7%. The strength and ductility of as-annealed alloy were 67 kg/mm^2 and 25%, respectively, and after aging, 95 kg/mm^2 and 3%. The alloy has a modulus elasticity of about 1200 kg/mm^2 and the temperature coefficient of elasticity modulus at 20—600C was found to be 70—80·10^{-6}1C. The alloy is recommended as an age-hardenable, nonmagnetic, corrosion-resistant material with a stable elasticity modulus at high temperature for springs operating at elevated temperatures in aggressive media. Orig. art. has: 4 figures. [ND]

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 002/ ATD PRESS: 5719

Card 2/2

S/076/63/037/001/001/029
B101/B186

AUTHORS: Drakin, S. I., Borisova, A. M., Pugatsevich, V. M. (Moscow)

TITLE: Determination of transference numbers on electrodiffusion in Na - Hg, K - Hg, Na - Tl, and K - Tl alloys

PERIODICAL: Zhurnal fizicheskoy khimii, v. 37, no. 1, 1963, 8-12

TEXT: A device for determining the transference number of an alloy that is solid at room temperature and easily affected by air and water vapor is described. 5 g of the alloy is put into a test tube of 17 mm diameter and 20 cm length, air being excluded. Then, a small vessel (0.5 ml) is enclosed in the test tube connected to it through a zigzag tube (diameter 2-2.5 mm, length 12 cm) so as to prevent convection. This inner vessel is filled with the melted alloy by suction. Test tube and inner vessel are provided with electrodes. After the experiment, the composition of the alloy in the test tube and in the inner vessel is analyzed. The concentration of the metal dissolved in the test tube remains almost constant, because the test tube is large compared with the inner vessel. The transference number n is calculated from the difference in content of dissolved metal.
Card 1/2

Determination of transference numbers on ...

The experiments were conducted at 115 - 215°C, 2.5 - 6 a, 6 - 11 hrs. The values of n as given in a table were used to calculate the diffusion coefficients for Hg dissolved in Na or K and for Tl dissolved in Na or K from the equation $n = DKc\rho F/T$, where ρ is the resistivity, T is the absolute temperature, F is the Faraday number, c is the concentration of the metal dissolved, and K is the coefficient of electrodiffusion. The following diffusion coefficients were obtained: for Hg in Na, $D = 0.70 \cdot 10^{-4}$ cm^2/sec at 115°C; for Hg in K, $D = 1.4 \cdot 10^{-4}$ cm^2/sec at 120°C; for Tl in K, $D = 0.71 \cdot 10^{-4}$ cm^2/sec at 115°C. The thallium atoms become solvated to a higher degree in potassium than in mercury, hence the lower D values for Tl in K. There are 2 figures and 2 tables. The most important English-language reference is: P. Mangelsdorf, J. Chem. Phys., 30, 1170, 1959.

ASSOCIATION: Khimiko-tekhnologicheskiy institut im. D. I. Mendeleyeva (Institute of Chemical Technology imeni D. I. Mendeleyev)

SUBMITTED: December 2, 1960

Card 2/2

41639

S/200/62/000/008/001/002
D234/D308

13.2540

AUTHORS: Alabuzhev, P. M., Shpigel'burd, I. Ya. and Borisova, A. N.

TITLE: Motion of a gyroscopic pendulum having no complete symmetry, placed on a fixed base, in the absence of frictional forces in the base

PERIODICAL: Akademiya nauk SSSR. Sibirskoye otdeleniye. Izvestiya, no. 8, 1962, 11 - 21

TEXT: The authors consider the motion of a gyroscopic pendulum having a static and dynamic unbalance with respect to the polar axis. The inertia of the Cardan suspension rings is not taken into account. Three coordinate systems (one fixed with respect to space, one fixed with respect to the pendulum and one "half-moving") are introduced. The motion of the pendulum is determined by three angles, α, β, φ. Generalized Euler equations are formulated and the following simplifications made: $\sin\alpha = \alpha$, $\sin\beta = \beta$, $\cos\alpha = \cos\beta = 1$, $\dot{\varphi}$ is large in comparison with $\dot{\alpha}$ and $\dot{\beta}$, the asymmetry of the

Card 1/3

pendulum with respect to its axis is small. The equations of motion are linearized under these assumptions and integrated for the case when the pendulum is subject to the force of gravity only. It is found that the motion of the pendulum can be considered as a superposition of: 1) two free vibrations with the angular velocities

$$\omega_1 = (\sqrt{\lambda^2 + k^2} + \lambda)\, P_0,$$
$$\omega_2 = (\sqrt{\lambda^2 + k^2} - \lambda)\, P_0, \qquad (19)$$

where

$$\dot{\varphi} = \text{const} = P_0, \quad \varphi = P_0 t + \varphi_0, \qquad (13)$$

$2\lambda = A/C$, $k^2 = Gl_c / Cp_0^2$, G is the value of the force of gravity, l_c is one of the components of the vector radius of the center of gravity of the pendulum, A is the axial moment of inertia, $C+\varepsilon'(t)$ and $C+\varepsilon''(t)$ are the equatorial moments of inertia, 2) vibrations

Card 2/3

Motion of a gyroscopic pendulum ...

caused by the disturbing inertial moment due to the asymmetry, having the same two frequencies as above, 3) forced vibrations having the frequenc y p_o. Two special cases are considered: a) symmetrical pendulum, for which the authors obtain $\alpha = \beta = 0$, $\varphi = p_o t$, b) slight asymmetry, one of the two parameters which characterize it being equal to 0. In this case the free vibrations 1) as above are absent. Maximum deviation of the axis is determined for this case. There are 2 figures.

ASSOCIATION: Novosibirskiy elektrotekhnicheskiy institut (Novosibirsk Institute of Electrical Engineering)

SUBMITTED: November 20, 1961

Card 3/3

42761

S/145/62/000/006/002/005
D262/D308

AUTHORS: Alabuzhev, P.M., Doctor of Technical Sciences, Professor, Shpigel'burd, I.Ya., Candidate of Technical Sciences, Docent, Borisova, A.N., Assistant

TITLE: The movement of a not entirely symmetrical gyroscopic pendulum

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Mashinostroyeniye, no. 6, 1962, 64-70

TEXT: The authors deduce differential equations of motion of a gyroscopic pendulum slightly asymmetric with respect to the polar axis, in case of small deviations from the vertical. The final equations being

$$A\ddot{\varphi} = M_{o\xi}$$
$$- C\dot{\beta} + A\dot{\varphi}\alpha + (I_{\eta\xi}\sin\varphi + I_{\zeta\xi}\cos\varphi)\dot{\varphi}^2 - (I_{\eta\xi}\cos\varphi - I_{\zeta\xi}\sin\varphi)\dot{\varphi} -$$
$$- Gl_c\beta + G(\eta_c\sin\varphi + \zeta_c\cos\varphi) = M_{o\eta 1} \qquad (10)$$
$$C\dot{\alpha} + A\dot{\varphi}\beta - (I_{\eta\zeta}\cos\varphi - I_{\zeta\zeta}\sin\varphi)\dot{\varphi}^2 - (I_{\eta\xi}\sin\varphi + I_{\zeta\xi}\cos\varphi)\ddot{\varphi} +$$
$$Gl_c\alpha - G(\eta_c\cos\varphi - \zeta_c\sin\varphi) = M_{o\zeta 1}$$

Card 1/3

The movement of a not entirely ...

These equations are integrated for the case where only the moment of gravity acts on the pendulum, where 0ξ is the axis of the pendulum. The general integral

$$\Delta = C_1 e^{i\omega_1 t} + C_2 e^{-i\omega_2 t} + \frac{d_1 + id_2}{2\lambda + k^2 - 1} e^{i(p_0 t + \varphi_0)}$$

where

$$\left.\begin{aligned} \omega_1 &= \left(\sqrt{\lambda^2 + k^2} + \lambda\right) p_0 \\ \omega_2 &= \left(\sqrt{\lambda^2 + k^2} - \lambda\right) p_0 \end{aligned}\right\} \qquad (16)$$

is obtained assuming that the angular velocities $\dot{\alpha}$ and $\dot{\beta}$ are small compared with the angular velocity of the rotation $\dot{\varphi}$, the centrifugal moments of inertia $I_{\xi\eta_1}$, $I_{\xi\zeta_1}$ and $I_{\eta_1\zeta_1}$ are small compared with the moments of inertia I_ξ, I_{η_1} and I_{ζ_1}. The effect of small static and dynamic asymmetries of the pendulum is discussed and it is shown that for the initial conditions $\alpha = \alpha_0$, $\beta = \beta_0$,

$\dot{\alpha} = \dot{\alpha}_0$, $\dot{\beta} = \dot{\beta}_0$ the movement of the pendulum axis in coordinates α and β is a sum of various oscillations. There is 1 figure.

ASSOCIATION: Novosibirskiy elektrotekhnicheskiy institut (Novosibirsk Electrotechnical Institute)

SUBMITTED: July 13, 1962

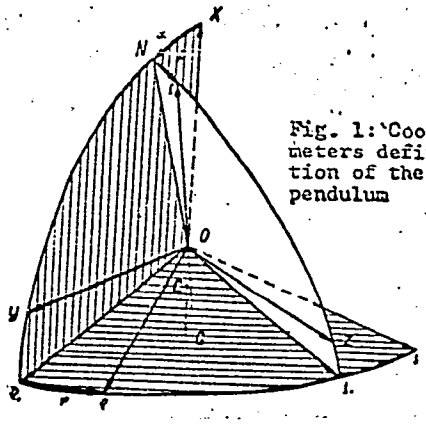

Fig. 1: Coordinate parameters defining the position of the gyroscopic pendulum

BORISOVA, A. N. (Aspirant)

"Motion of a not quite symmetrical gyroscope pendulum with vertically movable support."

report presented at the Scientific-technical Conference on Modern Gyroscope Technology Ministry of Higher and Secondary Special Education RSFSR, held at the Leningrad Institute of Precision Mechanics and Optics, 20-24 November 1962.

(Izv. vysshikh uchebnykh zavedeniy. Priborostroyeniye, v. 6, no. 2, 1963)

BORISOVA, A. K.

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19

AID Nr. 990-6 14 June

SCIENTIFIC-TECHNICAL CONFERENCE ON MODERN GYROSCOPE TECHNOLOGY (USSR)

Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye, v. 6, no. 2, 1963, 155-158. S/146/63/006/002/010/010

The Fourth Conference on Gyroscope Technology, sponsored by the Ministry of Higher and Secondary Special Education RSFSR, was held at the Leningrad Institute of Precision Mechanics and Optics from 20 to 24 November 1962. The conference was attended by representatives from 93 organizations in 30 Soviet cities, including educational establishments, scientific research institutes, design bureaus, and industrial concerns. The following are some of the topics covered in the 92 papers presented and discussed at the conference. Vibrations of a gyroscope pendulum with a movable suspension in a nonuniform gravitational field: M. Z. Litvin-Sedoy, Senior Scientific Worker; improving dynamic characteristics of some gyro instruments and devices: A. V. Reprikov, Docent, Candidate of Technical Sciences; some problems of the dynamics of a gyroscope with an electric drive installed in a gymbol suspension: S. A.

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AID Nr. 990-6 14 June

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SCIENTIFIC-TECHNICAL CONFERENCE [Cont'd] S/146/63/006/002/010/010

Kharlamov, Engineer; problems of the theory of the inertial method for measuring aircraft acceleration: I. I. Pomykayev, Docent, Candidate of Technical Sciences; determining the drift of a floated-type integrating gyroscope without the use of a dynamic stand: G. A. Slomyanskiy, Docent, Candidate of Technical Sciences; natural damping of nutational vibrations of a gyroscope: N. V. Gusev, Engineer; motion of a not quite symmetrical gyroscope pendulum with vertically movable support: A. N. Borisova, Aspirant; gyroscope-type inclinometer for surveying vertical freezing wells: V. A. Sinitsyn, Candidate of Technical Sciences; effect of joints between channels in triaxial gyro-stabilized platform: L. N. Slezkin, Engineer; theoretical proposal for the possible design of a generalized gyro instrument: M. M. Bogdanovich, Docent, Candidate of Technical Sciences; problem of drift in a power-type triaxial gyro stabilizer: V. N. Karpov, Engineer; methods of modeling random disturbances in gyro systems: S. S. Shishman, Senior Engineer; method of noise functions for investigating a system subjected to random

Card 2/3

AID Nr. 990-6 14 June

SCIENTIFIC-TECHNICAL CONFERENCE [Cont'd] S/146/63/006/002/010/010

signals: G. P. Molotkov, Docent, Candidate of Technical Sciences; drifts in a gyro-stabilized platform as a result of the effect of cross joints under determined and random disturbances: B. I. Nazarov, Docent, Candidate of Technical Sciences; stability and natural oscillations in inhomogeneously rigid gyro systems with backlash under external influences: S. A. Chernikov; methods of designing a gyro vertical with automatic latitude and course corrections: A. V. Til', Candidate of Technical Sciences; use of asymptotic methods in solving problems of the motion of an astatic gyroscope in gymbol suspension: D. M. Klimov, Candidate of Physical and Mathematical Sciences, and L. N. Slezkin; theory of aperiodic gyro pendula: V. S. Mochalin, Docent, Candidate of Technical Sciences; and selecting basic parameters of course gyros by using nomograms: V. P. Demidenko, Engineer. [AS]

Card 3/3

BORISOVA, A.N.

Investigating the movement of a gyroscopic pendulum with a minor assymetry. Izv.vys.ucheb.zav.; prib. 6 no.6:63-70 '63.
(MIRA 17:3)

1. Novosibirskiy elektrotekhnicheskiy institut. Rekomendovana IV Vsesoyuznoy mezhvuzovskoy nauchno-tekhnicheskoy konferentsiyey po problemam giroskopii.

ALABUZHEV, P.M.; SHPIGEL'BUID, I.Ya.; BORISOVA, A.N.

Motion of a quasi-symmetric gyropendulum mounted on a rigid foundation with no frictional forces in the support. Izv. Sib. otd. AN SSSR no.8:11-21 '62. (MIRA 17:8)

1. Novosibirskiy elektrotekhnicheskiy institut.

KONDRATSKAYA, Ye.A.; BORISOVA, A.N.; BESSCHASTNAYA, V.M.; ULYBIN, N.G.

Heat treatment of thin K40NKhM alloy wire. Biul. TSIICHM no.2: 47 '61. (MIRA 14:9)

(Alloys---Heat treatment)

BORISOVA, A.P.

Energy expenditures of collective-farm workers. Vop. pit. 21 no.6:43-46 N-D '62. (MIRA 17:5)

1. Iz laboratorii obmena veshchestv (zav. - prof. O.P. Molchanova) Instituta pitaniya AMN SSSR, Moskva.

SPITSYN, Vikt.I.; GRANOVSKIY, Yu.V.; KOMISSAROVA, L.N.; BORISOVA, A.P.; SAVICH, I.A.

Spectrophotometric study of the process of complex formation by the Box-Wilson method. Vest. Mosk. un. Ser. 2: Khim. 20 no.2:50-53 Mr-Ap '65. (MIRA 18:7)

1. Kafedra neorganicheskoy khimii Moskovskogo universiteta.

BORISOVA, [illegible]; SAVICH, I.A.; [illegible]; KOMISSAROVA, L.N.; SPITSYN, V.I.

Determination of the composition of iron sulfosalicylate by the Fox-Wilson method. Vest. Mosk. un. Ser. 2: Khim. 20 no.3:51-53 My-Je '65. (MIRA 18:8)

1. Kafedra neorganicheskoy khimii Moskovskogo universiteta.

BIBIKOV, F.P.; BORISOVA, A.P., veterinarnyy vrach; SAPOZHNIKOV, G.I.; ADIL'KHANOV, G.R., nauchnyy sotrudnik; ALIYEV, A.I., kand. veterin. nauk

Cases of animal poisoning. Veterinariia 41 no.5:90-92 My '64. (MIRA 18:3)

1. Zaveduyushchiy khimiko-toksikologicheskim otdelom Belorusskoy respublikanskoy veterinarnoy laboratorii (for Bibikov). 2. Belorusskaya respublikanskaya veterinarnaya laboratoriya (for Borisova). 3. Zaveduyushchiy epizootologicheskim otdelom Chuvashskoy respublikanskoy veterinarnoy laboratorii (for Sapozhnikov). 4. Dagestanskaya nauchno-issledovatel'skaya veterinarnaya stantsiya (for Adil'khanov, Aliyev).

BORISOVA, A.P.; AKIMOVA, L.N.; SAVICH, I.A.

Study of the biuret complex of gramicidin C derivatives with the amino group. Vest. Mosk. un. Ser. 2: Khim. 20 no.1:33-35 Ja-F '65. (MIRA 18:3)

1. Kafedra neorganicheskoy khimii Moskovskogo universiteta.

L 06199-67 EWT(m)/EWP(t)/ETI IJP(c) JD/JG/JH

ACC NR: AP6031723 SOURCE CODE: UR/0370/66/000/005/0137/0147

AUTHOR: Nagorskaya, N. D. (Moscow); Gol'denberg, A. E. (Moscow); Novoselova, A. V. (Moscow); Borisova, A. P. (Moscow); Fridlyander, I. N. (Moscow); Yatsenko, K. P.

35

ORG: none

TITLE: Partial phase diagram of the Al-Be-Mg system

SOURCE: AN SSSR. Izvestiya. Metally, no. 5, 1966, 137-147

TOPIC TAGS: aluminum beryllium magnesium system, aluminum beryllium magnesium alloy, alloy phase diagram, phase composition, alloy structure, METAL CRYSTALLIZATION, ALLOY SYSTEM, BERYLLIUM CONTAINING ALLOY, ALUMINUM CONTAINING ALLOY, MAGNESIUM CONTAINING ALLOY

ABSTRACT: A partial phase diagram of the aluminum-beryllium-magnesium system (see Fig. 1) has been plotted on the basis of data obtained by physicochemical analysis of 30 alloys containing 0—90% aluminum, 7.17—56.28% beryllium and 0—27.73% magnesium. Alloys were melted from AB-000-grade aluminum (99.99%-pure), MG-1 grade magnesium (99.91%-pure) and sublimated beryllium (99.4%-pure). It was found that three phases crystallize in the partial Al-β_{Al-Mg}-Be system: aluminum-base solid solution (α_{Al}); beryllium-base solid solution (B); and $\beta_{Al-Mg-Be}$ phase. At 445C the ternary eutectic solidifies according to the following reaction:

$$L \rightleftarrows B + \alpha_{Al} + \beta_{Al-Mg-Be}$$

Card 1/3 UDC: 669.715'725'721

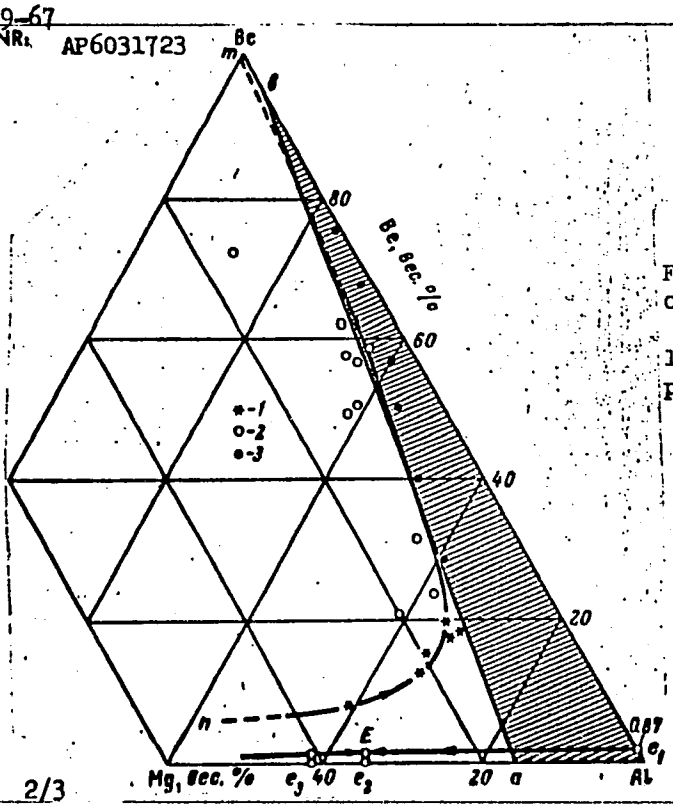

Fig. 1. Partial phase diagram of the Al-Be-Mg system

1 - Boundary line; 2 - two liquid phases; 3 - one liquid phase.

L 06199-67
ACC NR AP6031723

Ternary eutectic contains 35% Mg and slightly over 0.6% Be. A decomposition of the liquid phase into two mutually immiscible liquids occurs in a wide range of compositions. Orig. art. has: 5 figures and 3 tables.

SUB CODE: 11/ SUBM DATE: 27Mar65/ ORIG REF: 008/ OTH REF: 017

Card 3/3 afs

BORISOVA, A.S.

USSR/General Problems of Pathology - Tissue Transplantation and Tissue Therapy. U-2

Abs Jour : Ref Zhur - Biol., No 5, 1958, 22856

Author : Borisova, A.S.
Inst : -
Title : A Study of the Effects of Tissue Preparations upon Carbohydrate Metabolism.

Orig Pub : Nekotoryye voprosy farmatsii. Kiyev, Gosmedizdat USSR, 1956, 358-368

Abstract : Subcutaneous injections of aniline (I) into 26 rabbits resulted in the death of 7. Two hours after the injection of I blood glucose increased, on the average, by 137.6% over the initial level and, after 6 hours, by 95.2%. There were also significant increases in pyruvic (II) and lactic acid (III) blood levels; they remained elevated, in most animals, during the entire experiment (10 days). Ten minutes after the

Card 1/2

USSR/General Problems of Pathology -
Tissue Transplantation and Tissue Therapy.

Abs Jour : Ref Zhur - Biol., No 5, 1958, 22856

injection of I 25 rabbits received preserved skin grafts. All animals survived. During the first hours of the experiment changes in the concentration of sugar, II and III were less than in controls. Two hours after an injection of I, the blood sugar increased by 47.5%. In some rabbits, blood glucose concentration never surpassed the upper limit of normal throughout the experiment. Concentrations of II and III returned to their initial levels in the majority of animals toward the end of observation.

Card 2/2

BORISOVA, A. S., Cand Biol Sci (diss) -- "A comparative study of the biological activity of tissue preparations under conditions of anilin poisoning and blood loss". Odessa, 1960. 14 pp (Min Higher and Inter Spec Educ Ukr SSR, Odessa State U im I. I. Mechnikov), 200 copies (KL, No 12, 1960, 126)

S/081/61/000/010/007/029
B117/B207

AUTHORS: Klinov, I. Ya., Vorob'yeva, M. A., Borisova, A. S.

TITLE: Study of the corrosion resistance of aluminum in sulfuric acid and mixture

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 10, 1961, 285, abstract 10И193 (10I193). ("Tr. Mosk. in-ta khim. mashinostr.", v. 22, 1960, 96-104)

TEXT: The corrosion rate of aluminum of all types was found to increase with the H_2SO_4 concentration, and to reach its maximum in 80% H_2SO_4 (up to 1.2 - 1.3 g/m^2 hr). It is pointed out that rolled aluminum tends to regular corrosion, whereas cast aluminum tends to intercrystalline cracking. The corrosion rate of all types of aluminum increases considerably at a temperature rise from 20° to 80°C, in any H_2SO_4 concentration. Rolled aluminum of the АВ-000 (AV-000) and А-00 (A-00) types, as well as

Card 1/2

Study of the corrosion resistance...

A-1 (A-1), may be used in low-concentrated H_2SO_4 at 20^0-25^0C. [Abstracter's note: Complete translation.]

Card 2/2

L 19786-65 Pb-4 . SSD/AFWL/AMD

ACCESSION NR: AR4045761 S/0299/64/000/013/M016/M016

SOURCE: Ref. zh. Biologiya. Svodnyy tom, Abs. 13M98 14 B

AUTHOR: Savitskiy, I. V.; Borisova, A. S.; Vasyutinskaya, Ye. M.; Savitskiy, V. I.

TITLE: Certain metabolism link changes in the recipient's organism after homotransplantation of skin flaps

CITED SOURCE: Sb. 3 Vses. konferentsiya po peresadke tkaney i organov, 1963. Yerevan, 1963, 438-439

TOPIC TAGS: metabolism, metabolism link, homotransplantation, transplantation, skin, rabbit, dog, preservation

TRANSLATION: Metabolism changes were investigated in rabbits and dogs with transplantation of unchanged skin and skin preserved by chilling according to V. P. Filatov's method. Investigations were conducted for 30 to 45 days, and in some cases longer. Protein and carbohydrate metabolism, nucleic acid metabolism, activity of enzyme systems, general condition of animals, and certain indices of vitamin

Card 1/2

L 19786-65

ACCESSION NR: AR4045761

metabolism were investigated. In the first days following transplantation, the level of serum proteins was reduced due to albumin and the globulin (gamma globulin) level increased. At later stages the globulin level decreased, particularly the alpha- and beta-fractions, and the concentration of residual nitrogen in the blood was reduced (due to urea and amino acids of the blood serum). The level of amino acids increased in erythrocytes. Glycogen breakdown and carbohydrate oxidation increased. Enzyme activity rose and recovery of vitamins B and C increased. All these changes took place with transplantation of both unchanged skin flaps and preserved skin flaps. The authors think that transplantation exerts a general stimulating effect on the recipient's organism.

SUB CODE: LS ENCL: 00

Card 2/2

NORINA, A.M.; BORISOVA, A.Sh.

Hydrochemical characteristics of rivers in the northern part of the Kola Peninsula. Trudy MMBI no.9:12-17 '65.
(MIRA 18:12)

1. Murmanskoye upravleniye gidrometeorologicheskoy sluzhby.

VISHNEVSKAYA, Yu.S., kand.med.nauk; BORISOVA, A.T., vrach

Diet regime based on data from a clinical sanatorium in Zheleznovodsk. Uch.zap.Pyat.gos.nauch.-issl.bal'n.inst. 3:201-211 '60. (MIRA 15:10)

(ZHELEZNOVODSK--DIET IN DISEASE)

ACC NR: AP7001155 (A,N) SOURCE CODE: UR/0439/66/045/006/0858/0864

AUTHOR: Borisova, A. Ye.

ORG: All-Union Institute of Plant Protection, Leningrad (Vsesoyuznyy institut zashchity rasteniy)

TITLE: Raising locusts on semisynthetic media

SOURCE: Zoologicheskiy zhurnal, v. 45, no. 6, 1966, 858-864

TOPIC TAGS: entomology, ~~artificial diet~~, locust, insect, ~~reproduction~~ BIOLOGIC REPRODUCTION

ABSTRACT: An artificial diet for raising locusts in the laboratory was devised. Three viable generations of *L. m. manilensis* were raised successfully on the semisynthetic medium. Sterins, vitamin D_2, and their ratio to ascorbic acid were important factors in determining the reproductive ability of these insects. When *L. m. migratoria* was raised on this medium, growth was normal but adult fertility was lower than that of the controls. Orig. art. has: 6 tables. [WA-50 CBE No. 14] [LP]

SUB CODE: 06/ SUBM DATE: none/ ORIG REF: 005/ OTH REF: 007

Card 1/1 UDC: 595.724 Locusta. 082.2

ACC NR: AP6031840 (A) SOURCE CODE: UR/0131/66/000/007/0058/0060

AUTHOR: Borisova, A. Yu.; Zin'ko, E. L.; Fedina, I. V.

ORG: State Scientific Research Electroceramics Institute (Gosudarstvennyy nauchno-issledovatel'skiy elektrokeramicheskiy institut)

TITLE: A superduty refractory based on magnesia-alumina spinel

SOURCE: Ogneupory, no. 7, 1966, 58-60

TOPIC TAGS: refractory compound, magnesium oxide, alumina, ceramic pressing

ABSTRACT: As established by an experimental study of batches with different ratios of MgO to Al_2O_3 (3:1, 1:1, 1:3), pressed into 15 mm high briquets with a diameter of 100 mm, which were fired at from 1450 to 1750°C, increasing the content of technical alumina in magnesite refractory mass to a MgO:Al_2O_3 ratio of 1:3 leads to an increase in the temperature of initial deformation under load (4% compression) and to the synthesis of a new crystalline phase -- magnesia-alumina spinel, at 1600-1650°C. This also results in an increase in spalling resistance (3-5 heating - cooling cycles) and in some decrease in refractoriness (to 2120°C compared with >2300°C for batch KM-O (MgO:Al_2O_3 = 1:0)). Of the batches tested,

Card 1/2

UDC: 666.854

BORISOVA, B. A.

USSR / Pharmacology, Toxicology. Narcotics and Hypnotics U-2

Abs Jour : Ref. Zh.-Biol., No 2, 1958, No 7938

Author : Borisova, B.A.

Inst :

Title : The Effect of Chloral Hydrate on the Dissemination of Subcutaneously Introduced Bacterium Prodigiosum in White Rats.

Orig Pub : Tr. Astrakhansk. Med. in-ta, 1956, 12, No 2, 190-193

Abstract : The Spread of Bacterium prodigiosum was retarded when 21-30 mil. microorganisms per 0.1 ml of physiological solution were injected subcutaneously 7-15 minutes after chloral hydrate (10 mg in 0.2 ml of distilled water given subcutaneously) had been introduced. Phenamine (0.1 ml of 0.25% solution, also given subcutaneously) accelerated the

Card : 1/2

USSR / Pharmacology, Toxicology. Narcotics and Hypnotics. U-2

Abs Jour : Ref. Zh.-Biol., No 2, 1958, No 7938

Abstract : dissemination of B. prodigiosum when the latter was inoculated 30 minutes following excitation caused by phenamine.

Card : 2/2

BORISOVA, D.

Innovator from the village of Lesnovo. p.10.
KOOPERATIVNO ZEMEDELIE, Sofyia, Vol. 11, no. 3, Mar. 1956.

SO: Monthly List of East European Accessions, (EEAK), LC, Vol. 5, No. 6 June 1956, Uncl.

BORISOVA, E., mladshiy nauchnyy sotrudnik

The BESM does the planning. Radio no.10:23-24 O '61. (MIRA 14:10)

1. Vychislitel'nyy tsentr AN SSSR.
(Electronic digital computers)

BORISOVA, E. A.

15-57-4-5393

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 4, p 184 (USSR)

AUTHORS: Borisova, E. A., Kazarnovskiy, V. D.

TITLE: Laboratory Investigations on the Treatment of Saline Soil by Liquid Bitumen With Preliminary Flushing by Water (Laboratornyye issledovaniya po obrabotke zasolennykh gruntov zhidkim bitumom s predvaritel'noy promyvkoy vodoy)

PERIODICAL: Tr. Mosk. avtomob.-dor. in-ta, 1956, Nr 18, pp 241-248.

ABSTRACT: The material used was chloride-sulfate saline soil cut from a section of rock in the Andizhanskaya Oblast', Uz SSR. The data of the investigations are given. It was discovered that when the chloride and sulfate content of soil exceeds one percent, the soil is unsuitable for treatment with organic binding material in highway construction and demands preliminary flushing by water. The authors outline the relationship between number of flushings of the soil by water and the quantity

Card 1/2

Laboratory Investigations on the Treatment of Saline (Cont.)

of indroducible bitumen. They show the possibility of lowering the quantity of binding substance by increasing the number of flushings, and, on the other hand, lowering the number of flushings by somewhat increasing the expenditure of binding substance, depending on the economy of the construction. It is noted that flushing of the soil has not yet been applied in highway-construction practice. However, flushing the soil before treating with liquid bitumen may prove to be much more profitable than replacing the saline soil. The results obtained from testing samples by composite flushing of soil and use of liquid bitumen (bulk weight, water saturation, swelling, durability of dry and capillary-moistened samples) are in agreement, according to the degree of fitness of saline soils, with the classification of the "Technical rules on the construction of a roadbed and highway base in the desicated zone on saline soils." Flushing of the soil (2 to 3 times) is proposed for the roadbed immediately next to the highway. For flooding sections of the earthen roadbed, it is necessary to construct retaining borders of planking or of low soil ridges.

Card 2/2

Ye. G. B.

42753

S/827/62/000/000/002/005
D234/D308

26.2145

AUTHOR: Borisova, Z.P.

TITLE: Free oscillations of a liquid in an inclined cylinder

SOURCE: Variatsionnyye metody v zadachakh o kolebanii zhidkosti i tela s zhidkost'yu. Moscow, Vychisl. tsentr AN SSSR, 1962, 203-211

TEXT: An incompressible liquid in a cylindrical container inclined at an angle β with respect to the vertical is considered. Cylindrical coordinates are introduced, the z axis coinciding with the axis of the container. The problem is solved using Ritz' method. For λa ($\lambda = \sigma^2/g$, σ being the natural frequency, g the gravitational acceleration, a the radius of the cylinder) the author obtains an equation in the form of an infinite determinant containing trigonometric, hyperbolic and cylindrical functions of the nth order as well as roots of the latter. A table of several eigenvalues computed for $\beta = 0, 5, 10, 20, 30, 45$ and 60° with different orders

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S/827/62/000/000/002/005
D234/D308

Free oscillations of a liquid ...

of approximation and a graph of the dependence of the first two eigenvalues on β are given. There are 3 figures and 1 table.

Card 2/2

BORISOVA, E.P.; ANTIPOV, I.N., otv.red.

[Subprogram of the iteration method for solving a general problem in linear programming] Podprogramma iteratsionnogo metoda resheniia obshchei zadachi lineinogo programmirovaniia. Moskva, 1964. 40 p. (Akademiia nauk SSSR. Vychislitel'nyi tsentr. Standartnye programmy BESM-2, no.8). (MIRA 17:4)

35900

S/191/62/000/005/008/012
B110/B101

15.9160

AUTHORS: Korolev, A. Ya., Zherebkov, S. K., Borisova, F. K., Medvedeva, A. M., Grozhan, Ye. M.

TITLE: Gluing of ftoroplast-4 to rubbers

PERIODICAL: Plasticheskiye massy, no. 5, 1962, 37-39

TEXT: Ftoroplast-4 (polytetrafluoro ethylene) was glued to organofluorine and acrylonitrile rubbers. For this purpose the surface, degreased by means of gasoline, was modified with a sodium-naphthalene complex activated by addition of 2 g-atom Na metal per mole naphthalene in 1 liter tetrahydrofuran. After 40 sec treatment of the film, rinsing in acetone and water, and 30 min drying at 100°C, the surface color turned from milky white to gray-brown. The contact angle of wetting with water dropped here from 106 to 45-55°. Crude rubbers were pasted on using glue on the basis of nitrile rubber and thermoreactive resin (ФЭН-1 (FEN-1)). The strength of gluing of organofluorine and acrylonitrile rubbers to ftoroplast-4 with smooth surface was 0.56-0.92 kgf/cm, with rough surface 2.55-5.60 kgf/cm. The gluing of СКН-26 (SKN-26) rubber to

Card 1/2

S/191/62/000/005/008/012
B110/B101

Gluing of ftoroplast-4 to rubbers

ftoroplast-4 with rough surface was stable against heat aging at 100 and 170°C and 50 hr effect of АМГ-10ф (AMG-10f) medium at 170°C. By means of FEN-1, ftoroplast-4 films can also be glued to one another, to vulcanized organofluorine and acrylonitrile rubbers, and to metals, the heat treatment lasting for 60 min at 100°C. Glued joints with ftoroplast-4 with rough surface were destroyed within the rubber. There are 5 tables.

Card 2/2

L 12730-63 EPR/EPF(c)/EWP(j)/EWT(m)/BDS AFFTC/ASD Ps-4/Pr-4/Pc-4 RM/WW
ACCESSION NR: AP3002285 S/0062/63/000/006/1017/1022

AUTHOR: Aristov, B. G.; Babkin, I. Yu.; Borisova, F. K.; Kiselev, A. V.; Korolev, A. Ya.

TITLE: Changing the surface properties of polyethylene by oxidative treatment

SOURCE: AN SSSR. Izv. Otdeleniye khimicheskikh nauk, no. 6, 1963, 1017-1022

TOPIC TAGS: surface properties, polyethylene, oxidizing, surface polarity, adhesive properties, adsorption

ABSTRACT: Treating polyethylene with an oxidizing chrome composition (potassium dichromate and sulfuric acid) for 5 minutes at temperatures below 120 degrees) sharply increased its surface polarity, thus improving its adhesive properties, permitting gluing with polar adhesives and printing with inks. Oxidative treatment of low-pressure powdered polyethylene hardly changes its specific surface, as determined by very little difference in low-temperature adsorption of nitrogen between untreated and strongly oxidized material. However, the irreversible adsorption of water and the heat of adsorption were greatly increased, this adsorption being proportional to the degree of oxidation of the sample. Orig. art. has: 3 figures and 1 table.

Association: Moscow St. Un., Inst. of Physical Chemistry

Card 1/2

L 54777-65 EPA(s)-2/EWT(m)/EPF(c)/EPR/ENP(j)/T Pc-4/Pr-4/Ps-4/Pt-7 WW/RM

ACCESSION NR: AP5014521 UR/0069/65/027/003/0320/0325
541.183

AUTHOR: Borisova, F. K.; Galkin, G. A.; Kiselev, A. V.; Korolev, A. Ya.; Lygin, V. I.

TITLE: Infrared study of the nature of the active adhesion layer on the surface of polytetrafluoroethylene

SOURCE: Kolloidnyy zhurnal, v. 27, no. 3, 1965, 320-325

TOPIC TAGS: polytetrafluoroethylene, surface property, surface treatment, polymer, fluoropolymer, ir spectrum

ABSTRACT: The IR spectra of surface compounds based on polytetrafluoroethylene modified by different methods were studied using polymer films. Modification of the film by three different methods (in sodium naphthalene complex, in liquid ammonia solution of metallic sodium and in molten potassium acetate) produced hydrophobization of the surface and improved the adhesive properties of the polymer. Infrared spectra were studied in surface compounds based on multilayer polymer films before and after modification. Conjugated double bonds were found in the surface

Card 1/2

L 54777-65

ACCESSION NR: AP5014521

layers of films modified by all three treatments, yet each of the methods of modification leads to the formation of different new functional groups (CO, OH, CH_2, CH_3, NH_2). The carbonyl and hydroxyl surface groups are thermally less stable than CH_2 and CH_3 groups. The conjugated double bonds on modified film surfaces are not destroyed by heating in a vacuum up to 300°C. Orig. art. has: 1 table and 4 figures.

ASSOCIATION: none

SUBMITTED: 09Dec63 ENCL: 00 SUB CODE: OC

NO REF SOV: 009 OTHER: 014

Card 2/2

BORISOVA, G.

People of a factory. Pozh.delo 8 no.4:7-9 Ap '62. (MIRA 15:4)
(Moscow Province--Rubber industry--Fires and fire prevention)

BORISOVA, G.

The place where oil is produced. Pozh.delo 8 no.6:18-19 Je '62.
(MIRA 15:6)

(Oil fields--Fires and fire prevention)

BORISOVA, G.

Three days in Sverdlovsk; conference of the representatives of fire prevention research stations of the Russian Federation. Pozh.delo 8 no.7:13-14 Jl '62. (MIRA 15:8)
(Fire prevention—Research)

BORISOVA, G.

New developments in the life of the plant. Pozh. delo 8 no.10: 3-5 O '62. (MIRA 15:10)

(Pskov--Radio industry--Fires and fire prevention)

BORISOVA, G.

In the land of the Urals. Pozh. delo 9 no.9:3-5 S '63. (MIRA 16:10)

(Sverdlovsk Province--Fire prevention)

BORISOVA, G. (Sverdlovsk)

Demands of life. Pozh. delo 8 no.9:6 S '62. (MIRA 16:11)

BORISOVA, G.

The great lavsan. Pozh. delo 9 no.6:15-17 Je '63.
(MIRA 16:8)

BORISOVA, G. [Borysova, H.]

Egypt on the shores of the Neva. Znan.ta pratsia no.4:23 Ap '62. (MIRA 15:4)

(Leningrad—Sphinxes)

BORISOVA, G.

In the land of the Urals. Pozh.delo 9 no.10:3-4 O '63.
(MIRA 16:12)

BORISOVA, G.A.

GUREVICH, Boris Samsonovich; MAKHOTINA, Nina Grigor'yevna; SHURIK, Rakhil Mlyukomovna; BORISOVA, G.A., red.; SUDAK, D.M., tekhn. red.

[Fur articles, sheepskin coats, knit goods, sundries, perfumes and cosmetics; student manual for merchandise departments of institutes of Soviet commerce] Tovary: Pushno-mekhovye, ovchinno-shubnye, trikotazhnye, galantereinye, parfiumerno-kosmeticheskie; uchebnoe posobie dlia tovarovednykh otdelenii tekhnikumov sovetskoi torgovli. Moskva, Gos. izd-vo torg. lit-ry, 1957. 288 p. (MIRA 11:7)
(Commercial products)

Borisova, G.A.

PROSTYAKOV, Viktor Ivanovich; BORISOVA, G.A., redaktor; MEDRISH, D.M., tekhnicheskiy redaktor.

[Plastic goods, commercial chemicals, glass, pottery, furniture, and building materials] Tovary iz plastmass, khimiko-moskatel'nye, stekliannye, keramicheskie, mebel'nye i stroitel'nye. Moskva, Gos.izd-vo torg.lit-ry, 1957. 319 p. (MIRA 10:11)
(Commercial products)

ARKHANGEL'SKIY, Nikolay Andreyevich,; YEGORKIN, N.I., prof., retsenzent,; TATARINOV, A.P., starshiy prepodavatel', retsenzent,; BULGAKOV, N.V., prof., retsenzent,; BORISOVA, G.A., red.; MEDRISH, D.M.,tekhn. red.

[Industrial products, an introductory commodity guide] Vvedenie v tovarovedenie promyshlennykh tovarov. Moskva, Gos. izd-vo torgovoi lit-ry, 1958. 160 p. (MIRA 11:11)

1. Leningradskiy institut sovetskoy torgovli im. Engel'sa (for Yegorkin).
2. Kafedra tovarovedeniya promtovarov LTEI (for Tatarinov).
3. Kafedra tovarovedeniya promtovarov Vsesoyuznogo zaochnogo instituta sovetskoy torgovli (for Bulgakov).
(Commercial products)

BORISOVA, G. A.

KISELEV, Vasiliy Stepanovich; SHCHEGLOV, Lev Mikhaylovich; ARKHANGEL'SKIY, N.A., prof., red.; KALLIGA, G.P., dotsent, retsenzent; YEGORKIN, N.I., prof., retsenzent; DAVANKOV, A.V., dotsent, retsenzent; NOVODEREZHKIN, P.I., dotsent, retsenzent; KUTYANIN, G.I., prof., retsenzent; BULGAKOV, N.V., prof., retsenzent; BORISOVA, G.A., red.; MEDRISH, D.M., tekhn.red.

[Articles made from silicates, plastics and chemical industry products] Tovary silikatnye, iz plasticheskikh mass i khimiko-moskatel'nye. Pod red. N.A. Arkhangel'skogo. Moskva, Gos. izd-vo torg. lit-ry, 1958. 320 p. (MIRA 12:2)

1. Kafedra tovarovedeniya promtovarov Vsesoyuznogo zaochnogo instituta sovetskoy torgovli (for Bulgakov).
(Glassware) (Plastics) (Pottery)

PARKHOMENKO, Vasiliy Georgiyevich; ARKHANGEL'SKIY, N.A., prof., retsenzent; BULGAKOV, N.V., prof., retsenzent; ZAYTSEV, V.G. (Moskva), kand.tekhn. nauk, retsenzent; SHEKLAKOV, D.M. (Moskva), prepodavatel', retsenzent; PISHCHANSKAYA, B.A. (Odessa), prepodavatel', retsenzent; GUTAN, M.K., prepodavatel', retsenzent; GOL'DIN, A.E., prepodavatel', retsenzent; KHRYPOV, N.N. (Sverdlovsk), prepodavatel', retsenzent; DERYABINA, L.I., prepodavatel', retsenzent; YEMEL'YANOV, D.M. (Leningrad), prepodavatel', retsenzent; GONCHAROVA, L.D. (Simferopol'), prepodavatel', retsenzent; MATVEYEV, Ye.P., prepodavatel', retsenzent; ALEKSEYEV, I.M., prepodavatel', retsenzent; DUDINSKIY, S.L. (Leningrad), prepodavatel', retsenzent; BABUN, V.B. (Khar'kov), kand.tekhn.nauk, retsenzent; CHERNOV, N.V., prof., doktor tekhn.nauk, spetsred.; BORISOVA, G.A., red.; SUDAK, D.M., tekhn.red.

[Introduction to the study of commerial wares] Vvedenie v tovarovedenie promyshlennykh tovarov. Moskva, Gos.izd-vo torg.lit-ry, 1959. 135 p. (MIRA 12:7)
(Commercial products)

MESYACHENKO, Vitaliy Tikhonovich; ARKHANGEL'SKIY, N.A., prof., red.; BORISOVA, G.A., red.; MAMONTOVA, N.I., tekhn.red.

[Textile fabrics made with synthetic fibers] Tkani s primeneniem sinteticheskikh volokon. Pod red. N.A.Arkhangel'skogo. Moskva, Gos.izd-vo torg.lit-ry, 1960. 70 p. (MIRA 13:5)
(Synthetic fabrics)

YEGOROV, N.A.; BORISOVA, G.A., red.; GROMOV, A.S., tekhn. red.

[New types of vegetable markets; from the experience of the Moscow vegetable market] Novye tipy ovoshchnykh bazarov; iz opyta raboty torga Mosovoshch. Moskva, Gos.izd-vo torg.lit-ry, 1961. 44 p. (MIRA 14:11)

(Moscow—Vegetable trade)

FRIDMAN, Rudol'f Arkad'yevich; BORISOVA, G.A., red.; MEDRISH, D.M., tekhn. red.

[Consumers' information about perfumery and cosmetics] Pokupateliu o parfiumerii i kosmetike. Leningrad, Gostorgizdat, 1961. 191 p. (MIRA 14:8)

(Beauty culture) (Perfumes)

YANOVSKIY, Nikolay Mikhaylovich[translator]; BORISOVA, G.A., red.; MAMONTOVA, N.N., tekhn. red.

[Storage of vegetables and potatoes in China; popular storing methods] Khranenie ovoshchei i kartofelia v Kitae; narodnye metody khraneniia. Moskva , Gos.izd-vo torg. lit-ry, 1962. 166 p. (MIRA 15:3)

(China--Vegetables--Storage)
(China--Potatoes--Storage)

VINOGRADOV, Aleksandr Petrovich; KEDRIN, Yevgeniy Alekseyevich; TSEREVITINOV, Boris Fedorovich; SERGEYEV, M.Ye., zasl. deyatel' nauki, prof., doktor tekhn. nauk, retsenzent; BULGAKOV, N.V., prof., doktor tekhn. nauk, retsenzent; PLATUNOV, K.M., kand. tekhn. nauk, retsenzent; SHVETSOVA, T.P., inzh., retsenzent; MURVANIDZE, D.S., inzh., retsenzent; YEGORKIN, N.I., prof., doktor tekhn. nauk, retsenzent; MASHKOV, A.N., kand. sel'khoz. nauk, retsenzent; ARKHANGEL'SKIY, N.A., prof., red.; BORISOVA, G.A., red.; GROMOV, A.S., tekhn. red.

[Leather goods, shoes, furs and pelts] Kozhevenno-obuvnye, pushno-mekhovye i ovchinno-shubnye tovary. Pod red. N.A.Arkhangel'skogo. Moskva, Gos. izd-vo torg. lit-ry, 1962. 536 p. (MIRA 15:3)

(Boots and shoes) (Fur) (Hides and skins)

ANTONOV, Aleksandr Petrovich; MALKOV, Il'ya Izrailevich; BORISOVA, G.A., red.; MEDRISH, D.M., tekhn. red.

[Household refrigerators]Domashnie kholodil'niki. Moskva, Gostorgizdat, 1962. 70 p. (MIRA 16:2)
(Refrigerators)

PARKHOMENKO, Vasiliy Georgiyevich; ARKHANGEL'SKIY, N.A., prof., retsenzent; [deceased]; BULGAKOV, N.V., prof., retsenzent; ZAYTSEV, V.G., retsenzent(Moskva); SHEKLAKOV, D.M., prepodavatel' tekhnikumov sovetskoy torgovli, retsenzent(Moskva); KOZLOVA, Z.V., retsenzent (Moskva); PISHCHENSKAYA, B.A., retsenzent (Odessa); GUTAN, M.K., retsenzent; GOL'DIN, A.E., retsenzent; KHRYPOV, N.N., retsenzent(Sverdlovsk); DERYABINA, L.I., retsenzent; YEMEL'YANOV, D.M., retsenzent (Leningrad); GONCHAROVA, L.D., retsenzent(Simferopol'); MATVEYEV, Ye.P., retsenzent; ALEKSEYEV, I.M., retsenzent; DUDINSKIY, S.L., retsenzent(Leningrad); BABUN, V.B., kand. tekhn. nauk, retsenzent(Khar'kov); CHERNOV, N.V., prof., doktor tekhn. nauk, spets. red.; BORISOVA, G.A., red.; GROMOV, A.S., tekhn. red.

[Introduction to a knowledge of manufactured goods]Vvedenie v tovarovedenie promyshlennykh tovarov. Izd.2., dop. i perer. Moskva, Gostorgizdat, 1962. 142 p. (MIRA 16:1)
(Commercial products)

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[Receiving, determining the quality, and the simplest organoleptic method for analyzing meat, fish and milk products]Priemka, opredelenie kachestva i prosteishie organolepticheskie metody issledovaniia miasnykh, rybnykh i molochnykh tovarov. Moskva, Gostorgizdat, 1962. 247 p. (MIRA 16:3)
(Food—Analysis)

KOROTKOV, Sergey Nikitich; KRAVCHENKO, Semen Moiseyevich; SUBBOTIN, Semen Semenovich; BORISOVA, G.A., red.; BRODSKIY, M.P., tekhn. red.

[Manufacture of custom-made outerwear]Izgotovlenie verkhnei odezhdy po individual'nym zakazam. Moskva, Gostorgizdat, 1963. 301 p. (MIRA 16:4)

(Tailoring)

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[Commercial study of meat and fish merchandise and techniques for their marketing] Tovarovedenie miasnykh i rybnykh tovarov i tekhnika torgovli imi. Izd.2., dop. i perer. Moskva, Gostorgizdat, 1963. 303 p. (MIRA 16:10)
(Fishery products) (Marketing)

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[Study of manufactured goods; concise course] Tovarovedenie promyshlennykh tovarov; kratkii kurs. [By] P.R.Abramov i dr. Izd.2., perer. Moskva, Gostorgizdat, 1963. 768 p. (MIRA 16:11)

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[Commercial study of building wares] Tovarovedenie stroitel'nykh tovarov. Moskva, Ekonomika, 1964. 199 p.
(MIRA 17:8)

PALLADOV, S.S.; PAVLIN, A.V.; TER-OVAKIMYAN, I.A.; KEDRIN, Ye.A.; TSEREVITINOV, B.F.; BORISOVA, G.A., red.; MEDRISH, D.M., tekhn. red.

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[The study of food products] Tovarovedenie prodovol'stvennykh tovarov. By A.A.Kolesnik i dr. Moskva, Gos. izd-vo torg. lit-ry, 1961. 511 p. (MIRA 15:2)

(Food)

MODESTOVA, T.A., kand. tekhn. nauk, dotsent; BORISOVA, G.L., inzh.

Cutting in bulk from capron fabrics. Nauch. trudy MTILP 25: 205-209 '62. (MIRA 16:8)

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